Searching PAJ MENU NEWS HELP

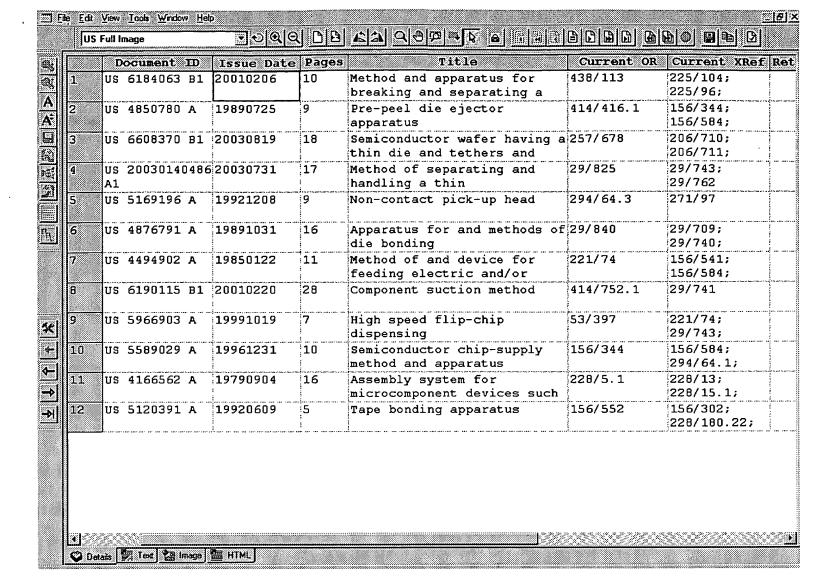
| | Search Results : 31 | Index Indication | Clear |
|----------------|--|--|-------------------------------|
| Text Sear | ch If you want to conduct a Number | Search, please click on the butto | n to the right. Number Search |
| Applicant | Title of invention,Abstrac | \mathbf{t} — e.g. computer semiconductor | |
| • | AND/OR operation, please leave a SF d or Stopwords are not searchable. | PACE between keywords. | |
| | vacuum and eject and pin | | AND 🕶 |
| | | AND | |
| | | | AND 🔽 |
| | | AND | |
| | | | AND 🔽 |
| | | AND | |
| Date of pu | ublication of application — | e.g.19980401 - 19980405 | |
| | | - | |
| | | AND | |
| IPC — e.g. [| D01B7/04 A01C11/02 | | |
| If you use the | OR operation, please leave a SPACE | between keywords. | |
| | | | |
| | | V | |
| | | Search Stored data | 1 |

Copyright (C); 1998,2003 Japan Patent Office

| No. | Publication No. | Title |
|-----|--------------------------|--|
| 1. | 2003 - 276060 | INJECTION MOLDING DIE AND PIN THEREFOR |
| 2. | 2003 - 136217 | EJECTION PIN FOR VACUUM DIE CASTING |
| 3. | 2002 - 239707 | DIE CASTING APPARATUS |
| 4. | 2001 - 200361 | OBSERVATORY APPARATUS IN HOT VACUUM VAPOR DEPOSITION APPARATUS |
| 5. | 11 - 354616(1999) | CHIP EJECTING DEVICE |
| 6. | 11 - 026667(1999) | MANUFACTURE OF SEMICONDUCTOR DEVICE |
| 7. | 10 - 197700(1998) | ELECTRON-BEAM IRRADIATION METHOD AND OBJECT IRRADIATED WITH ELECTRON BEAM |
| 8. | 10 - 189511(1998) | WAFER CLEANING DEVICE |
| 9. | 10 - 048136(1998) | METHOD AND APPARATUS FOR ANALYZING GAS ELEMENT |
| 10. | <u>09 - 235676(1997)</u> | PLASMA TREATMENT AND PLASMA TREATING DEVICE |
| 11. | 09 - 229563(1997) | CASTING MACHINE |
| 12. | 09 - 193174(1997) | APPARATUS FOR EXTRACTING ELASTIC MOLDED PRODUCT AND METHOD |
| 13. | 09 - 068808(1997) | PHOTOCOMPOSING MACHINE |
| 14. | 09 - 022665(1997) | X-RAY IMAGE PICKUP TUBE AND MANUFACTURE THEREOF |
| 15. | 07 - 316950(1995) | EJECTION DEVICE FOR FLOAT WEFT |
| 16. | 05 - 024080(1993) | INJECTION MOLDING MOLD AND INJECTION MOLDING METHOD |
| 17. | 04 - 336218(1992) | MOLD |
| 18. | 03 - 291389(1991) | PLASMA TREATING DEVICE |
| 19. | 03 - 254921(1991) | INJECTION MOLD |
| 20. | 03 - 254920(1991) | INJECTION MOLD |
| 21. | 03 - 161156(1991) | VACUUM DIE CASTING MACHINE |
| 22. | 02 - 258236(1990) | MOLDING METHOD OF SHORT-FIBER-REINFORCED RESIN |
| 23. | 01 - 320117(1989) | SYNTHETIC RESIN MOLDING EQUIPMENT |
| 24. | 01 - 109737(1989) | CHUCKING DEVICE AND METHOD FOR REMOVING WAFER TO BE CUT OFF FROM LARGE DIE |
| 25. | 63 - 264320(1988) | METHOD AND APPARATUS FOR MOLDING DISC |
| 26. | 63 - 210932(1988) | COMPOSER |
| 27. | 60 - 116421(1985) | EXTRACTING DEVICE FOR MOLDED PART |
| 28. | 58 - 197734(1983) | MOLD PRODUCT LOADING/UNLOADING APPARATUS |
| 29. | 58 - 059826(1983) | RESIN CASING FOR VACUUM CLEANER OR THE LIKE |
| | | |

- 30. <u>57 160561(1982)</u> VACUUM DIE CASTING METHOD
- 31. <u>57 160560(1982)</u> PRESSURE CASTING DEVICE

Copyright (C); 1998,2003 Japan Patent Office



| L Number | Hits | Search Text | DB | Time stamp |
|--------------|------|--|--|-----------------------|
| Number 23 | 23 | (vacuum suct\$3) adj nozzle with | USPAT; | 2004/03/11 |
| 23 | 23 | (resilient flexible) adj material | EPO; JPO | 17:19 |
| 24 | 469 | (vacuum suct\$3) adj nozzle with | USPAT; | 2004/03/11 |
| i i | | (resilient flexible rubber) | EPO; JPO | 17:20 |
| 26 | 1 | (vacuum suct\$3) adj (tip nozzle) with | USPAT; | 2004/03/11 |
| | | (resilient flexible rubber) and eject\$3 | EPO; JPO | 17:21 |
| | | adj pin | ***** | 0004/02/11 |
| 27 | 1 | (vacuum suct\$3) near (tip nozzle) with (resilient flexible rubber) and eject\$3 | USPAT; EPO; JPO | 2004/03/11 17:21 |
| | | (resilient liexible lubber) and eject35 | EPO; JPO | 17:21 |
| 28 | 12 | (vacuum suct\$3) near (tip nozzle) with | USPAT; | 2004/03/11 |
| | | (resilient flexible rubber) and wafer | EPO; JPO | 17:35 |
| 31 | 13 | (vacuum suct\$3) near (tip nozzle) with | USPAT; | 2004/03/11 |
| | 1 | (resilient flexible rubber) and die | EPO; JPO | 17:36 |
| 32 | 603 | (vacuum suct\$3) near (tip nozzle) with | USPAT; | 2004/03/11 |
| | | (resilient flexible rubber) | EPO; JPO | 17:37 |
| 33 | 10 | 264/\$.ccls. and (vacuum suct\$3) near (tip | USPAT; | 2004/03/11 17:37 |
| 34 | 21 | nozzle) with (resilient flexible rubber) 29/\$.ccls. and (vacuum suct\$3) near (tip | EPO; JPO USPAT; | 2004/03/11 |
| 33 | "" | nozzle) with (resilient flexible rubber) | EPO; JPO | 17:38 |
| 35 | 124 | (vacuum suct\$3) near (tip nozzle) with | USPAT; | 2004/03/11 |
| | | rubber | EPO; JPO | 17:44 |
| 36 | 76 | (vacuum suct\$3) near (tip nozzle) with | USPAT; | 2004/03/11 |
| 27 | | resilient | EPO; JPO | 17:44 |
| 37 | 33 | (vacuum suct\$3) near (tip nozzle) same | USPAT; | 2004/03/11 |
| 38 | 45 | resilient adj material (vacuum suct\$3) near (tip nozzle) same | EPO; JPO USPAT; | 17:45 2004/03/11 |
| 30 | 13 | flexible adj material | EPO; JPO | 17:50 |
| 39 | 58 | (vacuum suct\$3) near (tip nozzle) same | USPAT; | 2004/03/11 |
| | | (soft resilieant flexible) adj material | EPO; JPO | 17:51 |
| - | 277 | chen.in. and wafer.ti. | USPAT; | 2004/01/09 |
| | | | US-PGPUB; | 10:50 |
| 1_ | 104 | (chen.in. and wafer.ti.) and separat\$3 | EPO; JPO USPAT; | 2004/01/09 |
| - | 104 | and semiconductor | US-PGPUB; | 10:51 |
| | | | EPO; JPO | |
| - | 4 | ((chen.in. and wafer.ti.) and separat\$3 | USPAT; | 2004/01/09 |
| | | and semiconductor) and tether | US-PGPUB; | 10:51 |
| | _ | 4him add dia anno 2000-200 3 | EPO; JPO | 2004/03/06 |
| - | 9 | thin adj die same separat\$3 and vacuum | USPAT; EPO; JPO | 2004/03/06 |
| _ | 495 | die same separat\$3 and vacuum same wafer | USPAT; | 2004/03/06 |
| | | The second secon | EPO; JPO | 13:28 |
| - | 2 | (die same separat\$3 and vacuum same | USPAT; | 2004/03/06 |
| | | wafer) and tether | EPO; JPO | 13:04 |
| - | 62 | (die same separat\$3 and vacuum same | USPAT; | 2004/03/06 |
| _ | 170 | wafer) and clamp\$3 and moving | EPO; JPO | 13:04 2004/03/06 |
| 1- | 172 | die same separat\$3 and vacuum and support same wafer and (clamp\$3 hold\$3) and | USPAT; EPO; JPO | 13:29 |
| | | (moving transfer\$3) | 210, 010 | 20.25 |
| - | 12 | (die same separat\$3 and vacuum and | USPAT; | 2004/03/06 |
| | | support same wafer and (clamp\$3 hold\$3) | EPO; JPO | 13:30 |
| | | and (moving transfer\$3)) and eject\$3 with | | |
| | | pin | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2004/02/20 |
| - | 17 | ("1179482" "2647578" "3493155" "3507426" "3562057" "3562058" | USPAT | 2004/03/10 11:26 |
| | l | "3565306" "3677875" "3678550" | | 11.20 |
| | 1 | "3790051" "4140260" "4296542" | | |
| | | "4706370" "4775085" "5104023" | | |
| | | "5227001" "5710065").PN. | | |
| - | 4 | ······ ··- ··- ··- ··- ·· ·· · · · | USPAT; | 2004/03/10 |
| | _ | adj pin | EPO; JPO | 11:31 |
| - | 2 | , , | USPAT; EPO; JPO | 2004/03/10 |
| _ | 32 | pin position\$3 and clamp\$3 and moving and | USPAT; | 2004/03/10 |
| | 32 | vacuum and ejection adj pin | EPO; JPO | 11:35 |
| - | 0 | | USPAT; | 2004/03/10 |
| | | | EPO; JPO | 11:35 |

| | | | | · · · · · · · · · · · · · · · · · · · |
|----------|-----|--|---|---------------------------------------|
| - | 0 | down\$1ward with vacuum and ejection adj | USPAT; | 2004/03/10 |
| | 1 | pin | EPO; JPO | 11:35 |
| - | 1 | breaking same vacuum and ejection adj pin | USPAT; EPO; JPO | 11:36 |
| _ | 1 | tether and vacuum and ejection adj pin | USPAT; | 2004/03/10 |
| | • | conce and vacuum and ejection and pan | EPO; JPO | 11:37 |
| _ | 14 | 29/\$.ccls. and vacuum and ejection adj | USPAT; | 2004/03/10 |
| | | pin | EPO; JPO | 11:38 |
| - | 11 | 257/\$.ccls. and vacuum and ejection adj | USPAT; | 2004/03/10 |
| | _ | pin | EPO; JPO | 11:39 |
| - | 5 | 438/\$.ccls. and vacuum and ejection adj | USPAT; | 2004/03/10 |
| _ | 12 | pin (nozzle tip) with (suction vacuum) and | EPO; JPO USPAT; | 11:40 2004/03/10 |
| | 12 | ejection adj pin | EPO; JPO | 11:40 |
| _ | 50 | 4494902.URPN. | USPAT | 2004/03/10 |
| | | | | 11:44 |
| - | 26 | 5169196.URPN. | USPAT | 2004/03/10 |
| | _ | | | 13:31 |
| - | 9 | ("4667402" "4859269" "4874444" | USPAT | 2004/03/10 |
| | | "4990051" "5169196" "5351872" "5447266" "5589029" "6201306").PN. | | 13:32 |
| _ | 9 | 5960260.URPN. | USPAT | 2004/03/10 |
| | - | | | 13:36 |
| - | 6 | • = = = = = | USPAT | 2004/03/10 |
| | | "5237205" "5444301" "5504374").PN. | | 13:41 |
| - | 7 | 4876791.URPN. | USPAT | 2004/03/10 |
| | 1.4 | /#26220EE# #2002140# #2046021# | USPAT | 13:41 2004/03/10 |
| _ | 14 | ("3632955" "3902148" "3946931" "3949925" "3958740" "4010885" | USPAI | 13:42 |
| 1 | | "4135630" "4151945" "4166562" | | 13.12 |
| | ! | "4270649" "4372802" "4498023" | | |
| | | "4500032" "4510683").PN. | | |
| - | 50 | 4494902.URPN. | USPAT | 2004/03/10 |
| | | (#2274020# #2705507# #2702122# | 110000 | 13:45 |
| - | 6 | ("3274038" "3785507" "3793123" "4290732" "4375126" "4410103").PN. | USPAT | 2004/03/10 |
| _ | 1 | 6205745.URPN. | USPAT | 2004/03/10 |
| | _ | | | 13:48 |
| - | 3 | ("4494902" "5203143" "5319846").PN. | USPAT | 2004/03/10 |
| | _ | | | 13:48 |
| - | 0 | 6190115.URPN. | USPAT | 2004/03/10 |
| | 3 | ("4494902" "5310301" "5348316").PN. | USPAT | 13:48 |
| <u> </u> | 3 | (4494902 | OSEAL | 13:49 |
| _ | 1 | 5966903.URPN. | USPAT | 2004/03/10 |
| | | | | 13:49 |
| - • | 3 | ("4494902" "5203143" "5319846").PN. | USPAT | 2004/03/10 |
| | 35 | 4740126 VPDV | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 13:49 |
| - | 35 | 4740136.URPN. | USPAT | 2004/03/10 |
| | 2 | ("3906614" "4494902").PN. | USPAT | 2004/03/10 |
| | _ | , , ====== , , ==== | | 13:52 |
| - | 4 | 5589029.URPN. | USPAT | 2004/03/10 |
| | _ | | | 13:52 |
| - | 3 | ("4850780" "4859269" "5348316").PN. | USPAT | 2004/03/10 |
| _ | 3 | ("4850780" "4859269" "5348316").PN. | USPAT | 13:53 2004/03/10 |
| | 3 | (4030700 4039209 3340310 /.FN. | OSPAI | 13:53 |
| - | 21 | 4166562.URPN. | USPAT | 2004/03/10 |
| |] | | | 13:54 |
| - | 11 | ("3442432" "3465408" "3593404" | USPAT | 2004/03/10 |
| | | "3689991" "3724068" "3859718" "3007703" "3011560" "3040035" | | 13:56 |
| | | "3887783" "3911568" "3949925" "4003125" "4010885").PN. | | |
| _ | 18 | 3887783.URPN. | USPAT | 2004/03/10 |
| | | 330,,03.01(1) | JULAI | 13:56 |
| - | 5 | 5120391.URPN. | USPAT | 2004/03/10 |
| | | | | 13:59 |
| - | 5 | ("3937386" "3941297" "4050618" | USPAT | 2004/03/10 |
| | | "4166562" "4526646").PN. | | 13:59 |

| | | | r | |
|----------|-----|--|---------------|------------|
| - | 5 | ("4555876" "4749329" "4851902" | USPAT | 2004/03/10 |
| | | "4978253" "5549716").PN. | | 14:00 |
| _ | 3 | 5987722.URPN. | USPAT | 2004/03/10 |
| | | | | 14:01 |
| _ | 5 | 5120391.URPN. | USPAT | 2004/03/10 |
| - | 3 | 5120391.0RPN. | USPAI | |
| | _ | | | 14:02 |
| - | 8 | 5660318.URPN. | USPAT | 2004/03/10 |
| 1 | | | | 14:02 |
| _ | 4 | ("4051508" "4060828" "4244002" | USPAT | 2004/03/10 |
| | | "5120391").PN. | | 14:03 |
| | 4 | ("4051508" "4060828" "4244002" | USPAT | 2004/03/10 |
| - | 4 | | USPAI | 1 |
| | _ | "5120391").PN. | | 14:03 |
| - | 5 | ("3937386" "3941297" "4050618" | USPAT | 2004/03/10 |
| | | "4166562" "4526646").PN. | | 14:03 |
| - | 124 | separating and vacuum and eject\$3 adj pin | USPAT; | 2004/03/10 |
| | | | EPO; JPO | 14:16 |
| _ | 18 | separating same wafer and (suction | USPAT; | 2004/03/10 |
| _ | 10 | | | 14:19 |
| | | vacuum) and (push\$3 eject\$3) adj pin | EPO; JPO | |
| - | 62 | (extract extracting separating) same (die | USPAT; | 2004/03/10 |
| | | chip ic) and (suction vacuum) and | EPO; JPO | 14:20 |
| | | (push\$3 eject\$3) adj pin | | |
| _ | 3 | ("6297075" "6337258" "6429506").PN. | USPAT | 2004/03/10 |
| | | | 1 | 14:21 |
| <u> </u> | _ | ("5152707" "5516125" "5738165" | USPAT | 2004/03/10 |
| - | 6 | | USPAI | ' ' |
| | | "5932065" "5938211" "6032715").PN. | | 14:21 |
| . – | 1 | 6427539.pn. | USPAT; | 2004/03/10 |
| | | | EPO; JPO | 16:31 |
| _ | 0 | 6427539.URPN. | USPAT | 2004/03/10 |
| | _ | | | 16:31 |
| | 12 | ("3761784" "4191057" "4275406" | USPAT | 2004/03/10 |
| 1 - | 12 | | USPAI | 1 |
| | | "4317126" "4444054" "4683755" | | 16:31 |
| | | "4986861" "4996627" "5356176" | | |
| | | "5629486" "5644102" "5917264").PN. | | |
| _ | 42 | 4317126.URPN. | USPAT | 2004/03/10 |
| | | | | 16:31 |
| _ | 7 | ("3801949" "3858150" "4127840" | USPAT | 2004/03/10 |
| _ | , | | USIAI | |
| | | "4203327" "4317126" "4456901" | | 16:32 |
| | | "4510671").PN. | | |
| - | 9 | 4651120.URPN. | USPAT | 2004/03/10 |
| | | | | 16:32 |
| _ | 9 | ("3626096" "3663768" "3772133" | USPAT | 2004/03/10 |
| | - | "3991285" "4491697" "4651120" | | 16:33 |
| | | "4783821" "4993072" "5146435").PN. | | |
| | 10 | 5490220.URPN. | TICDAT | 2004/03/10 |
| _ | 10 | 3490220.0RPN. | USPAT | 1 |
| | | | | 16:33 |
| - | 13 | | USPAT | 2004/03/10 |
| | | "4234811" "4310906" "4321432" | | 16:34 |
| 1 | | "4701640" "4730283" "5255246" | 1 | |
| 1 | | "5490220" "5548658" "6169810" | | · 1 |
| | | "6178249").PN. | | Į l |
| | _ | · · | IICDAT | 2004/03/10 |
| - | 0 | 6532293.URPN. | USPAT | 2004/03/10 |
| | | | | 16:34 |
| - | 0 | 6532293.URPN. | USPAT | 2004/03/10 |
| | | | İ | 16:34 |
| ! | 10 | 5490220.URPN. | USPAT | 2004/03/10 |
| 1 | | | ļ | 16:35 |
| I _ | 9 | 4651120.URPN. | USPAT | 2004/03/10 |
| - | ! | 1031120.UKPN. | USPAI | , , , |
| | | | | 16:35 |
| - | 7 | , | USPAT | 2004/03/10 |
| | | "4203327" "4317126" "4456901" | | 16:36 |
| | | "4510671").PN. | | |
| _ | 13 | 4275406.URPN. | USPAT | 2004/03/10 |
| 1 | 13 | | | 16:36 |
| | _ | /#2750020# #276170## #2002220# | HEDAM | i |
| - | 6 | , | USPAT | 2004/03/10 |
| L | 1 | "4125820" "4131524" "4204185").PN. | L | 16:36 |
| | | | - | |